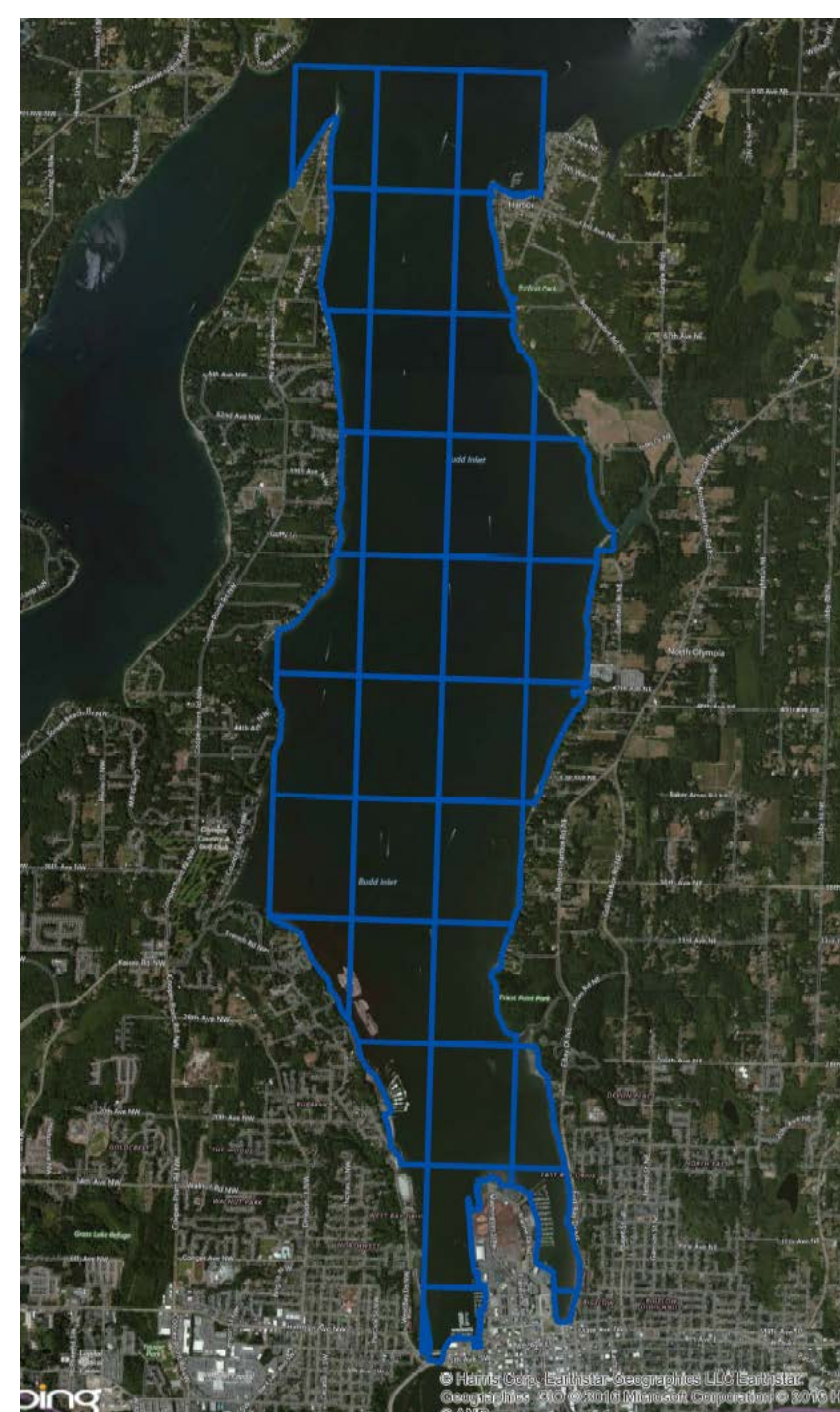


# Budd Inlet Dissolved Oxygen TMDL

November 2016  
Advisory Committee Update

# Budd Inlet Modeling

- Use 303(d) grid to combine model cells
- Shallow areas: combine entire water column for layers with water at low tide
- Deeper areas: combine the bottom half of water column



# Water Quality Standards



Outer Budd Inlet: 6mg/L

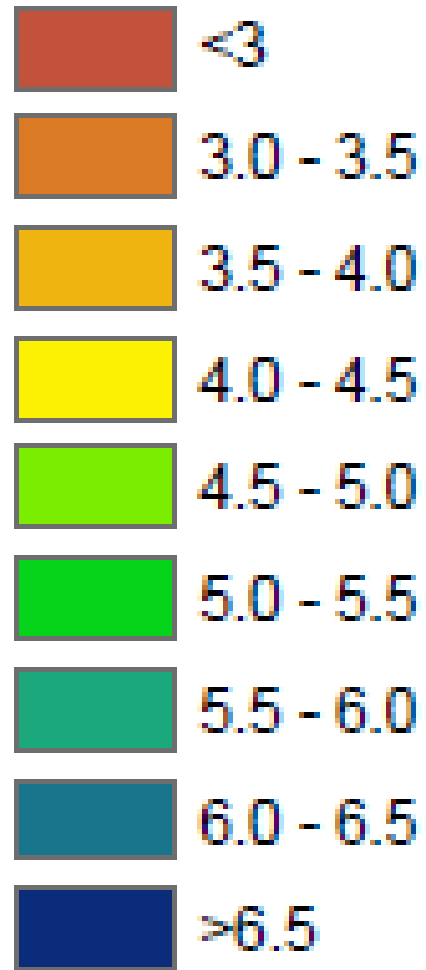


Inner Budd Inlet: 5 mg/L

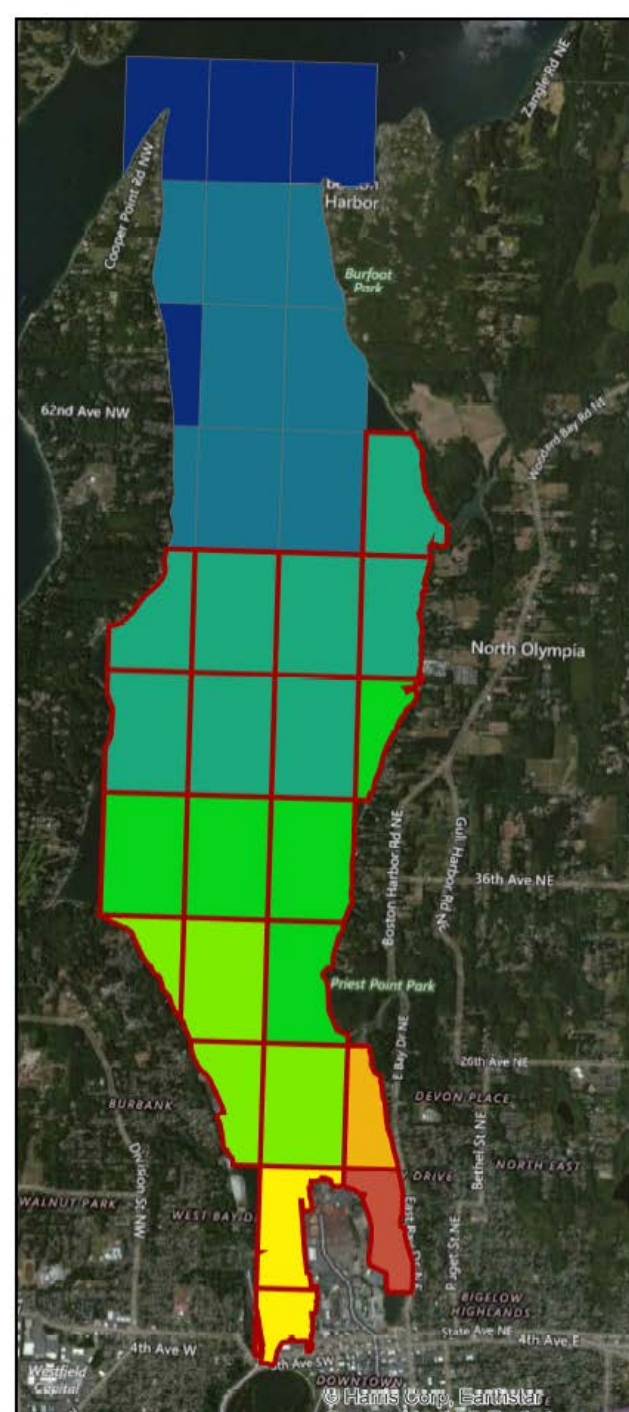


# Existing Dissolved Oxygen

Modeled existing  
dissolved oxygen  
concentrations in mg/L  
on the day with lowest  
dissolved oxygen.



 Violations of WQS

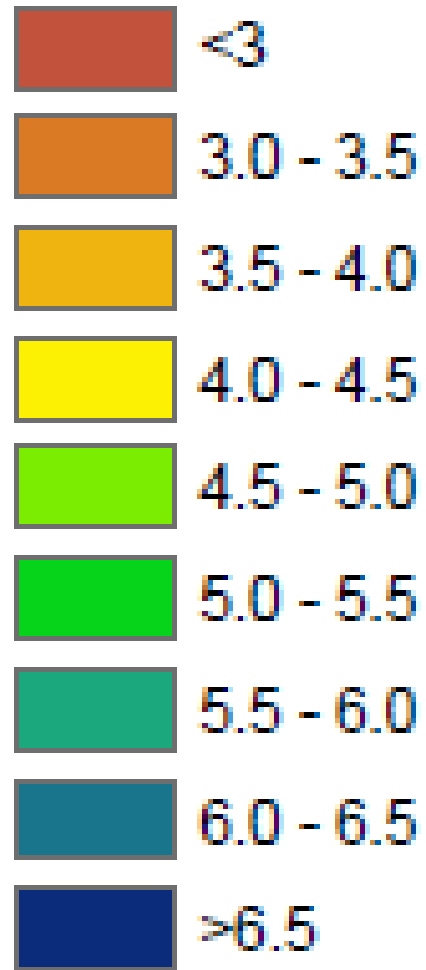




# Natural Dissolved Oxygen

Modeled natural  
dissolved oxygen  
concentrations in mg/L  
on the day with lowest  
dissolved oxygen.

Note: no violations

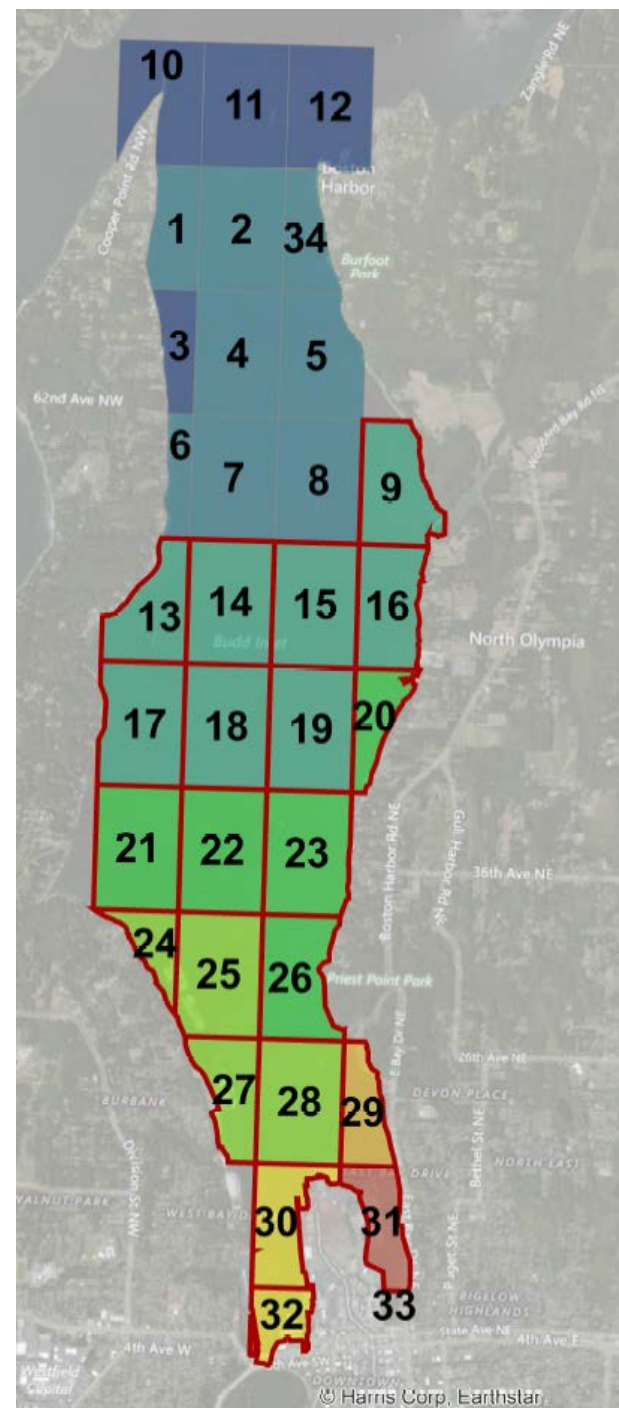


 Violations of WQS

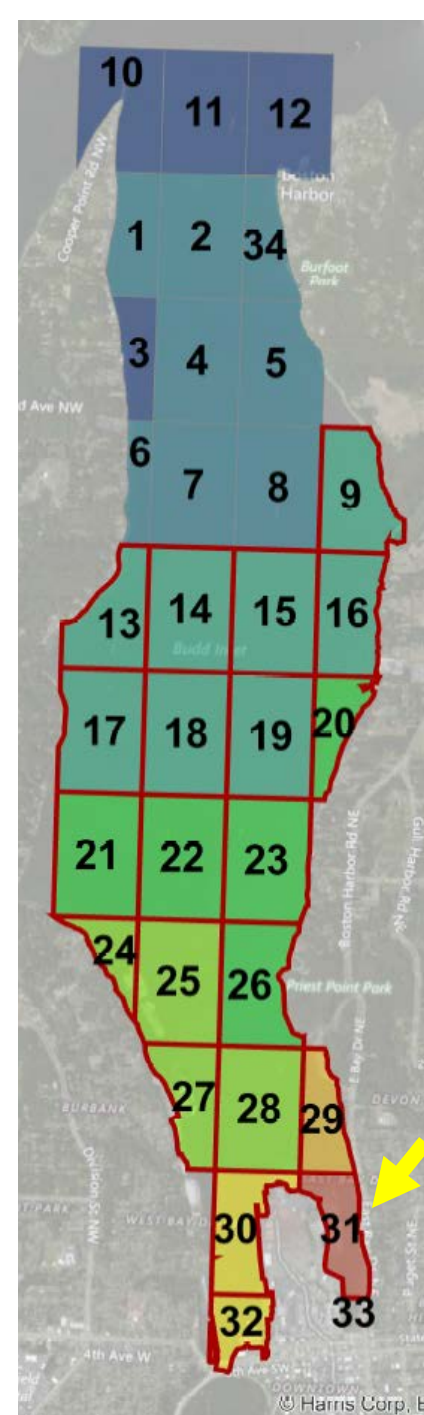
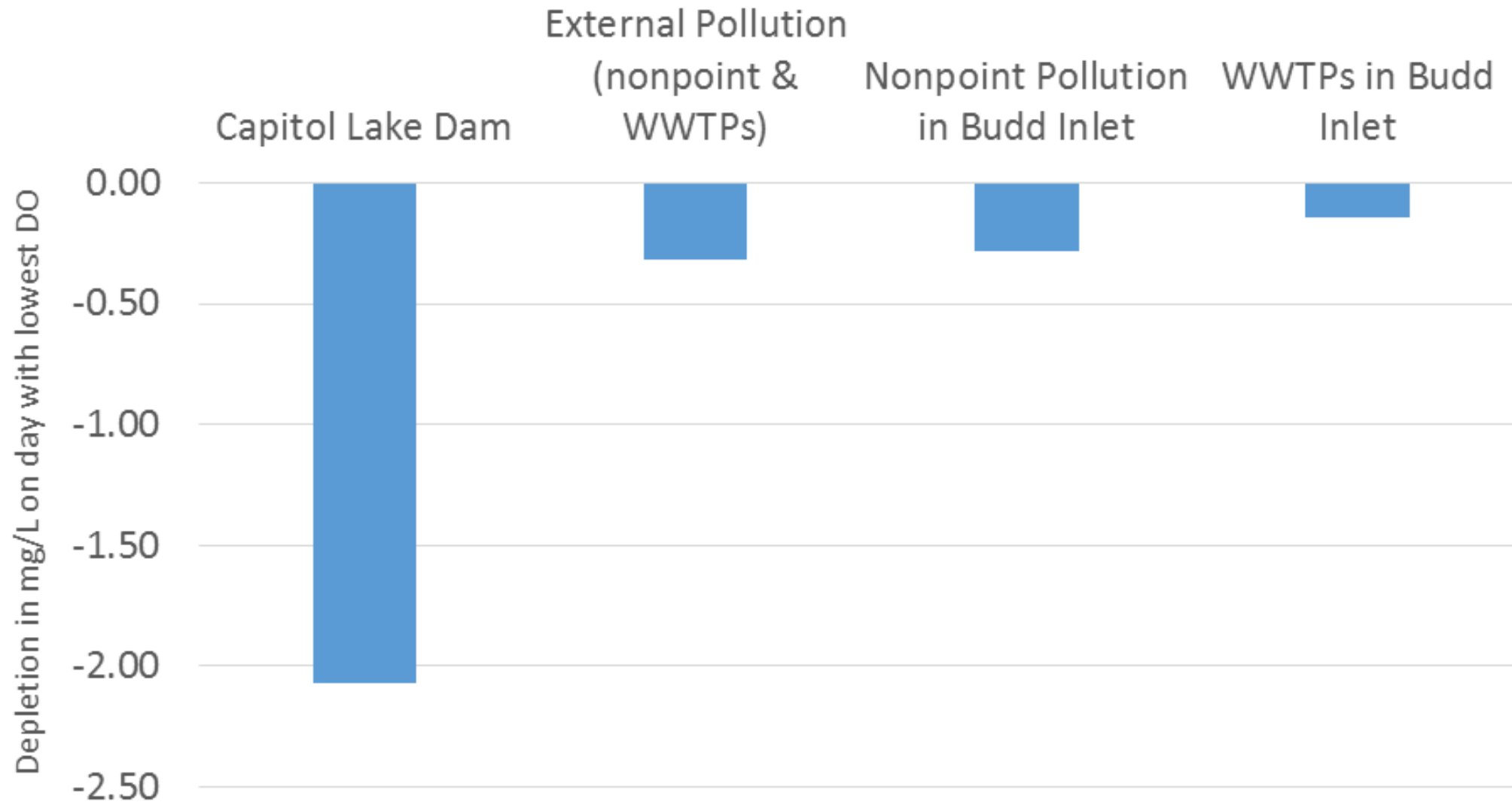


# Looking at a few key spots....

Grid cells 8, 15, 25, 29, & 31

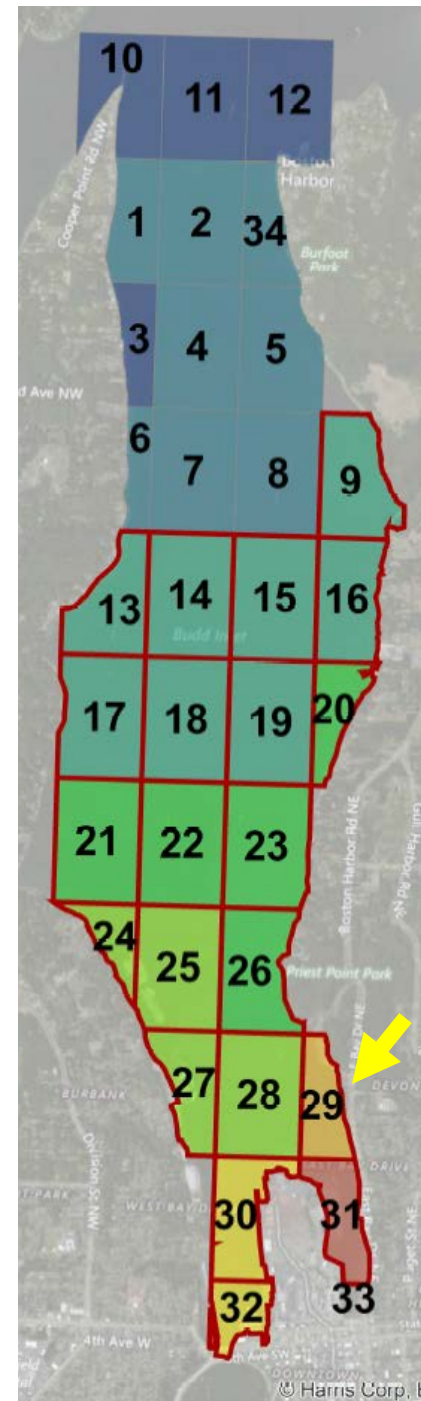
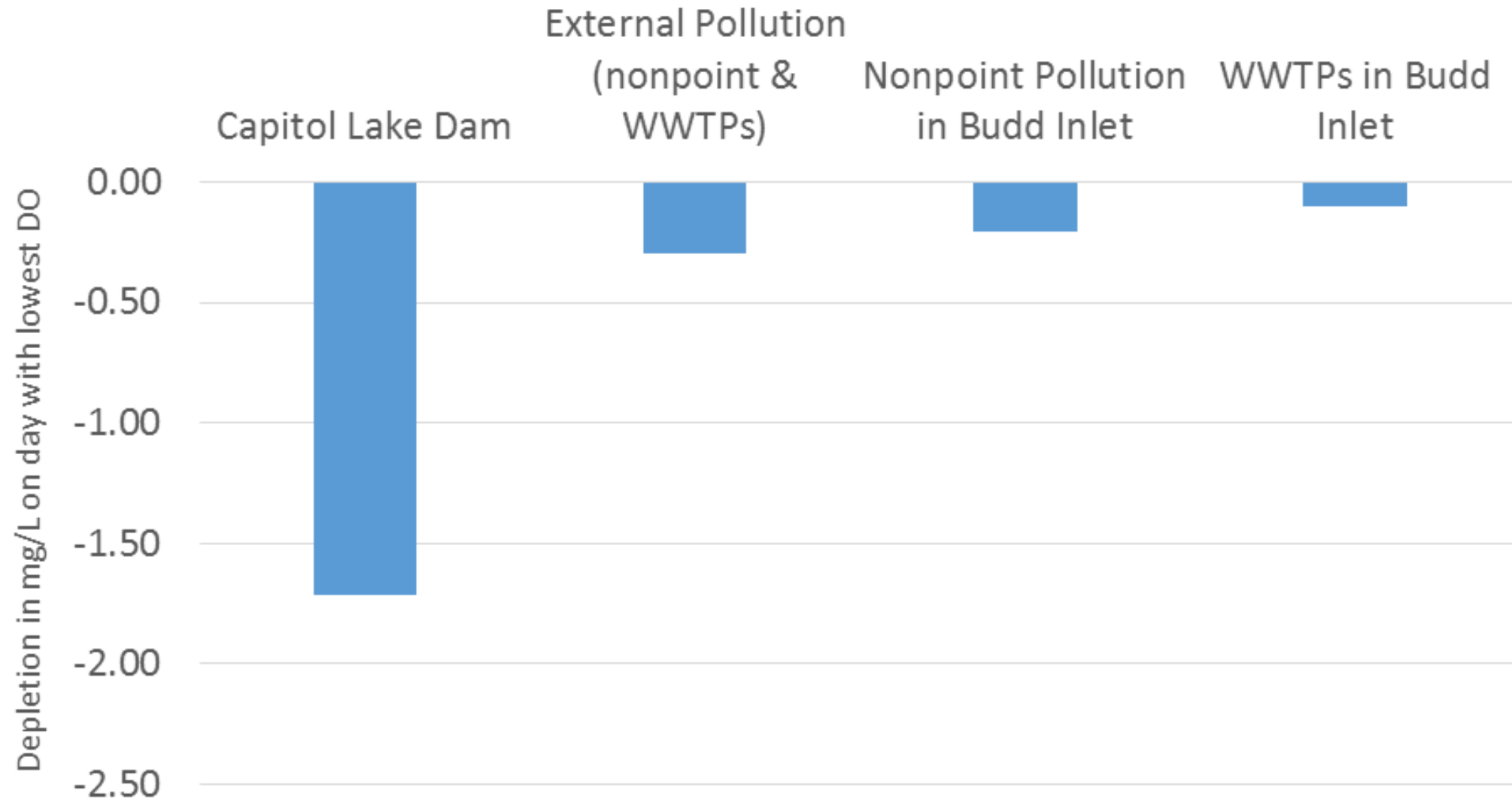


# Total Depletion in Dissolved Oxygen in Cell 31 (in mg/L on day with lowest DO)



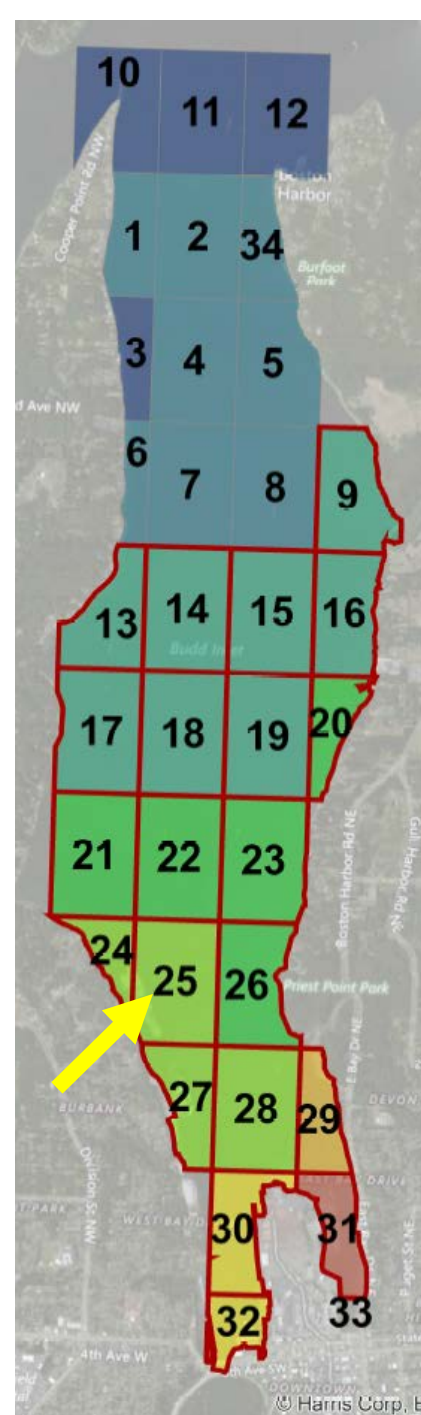
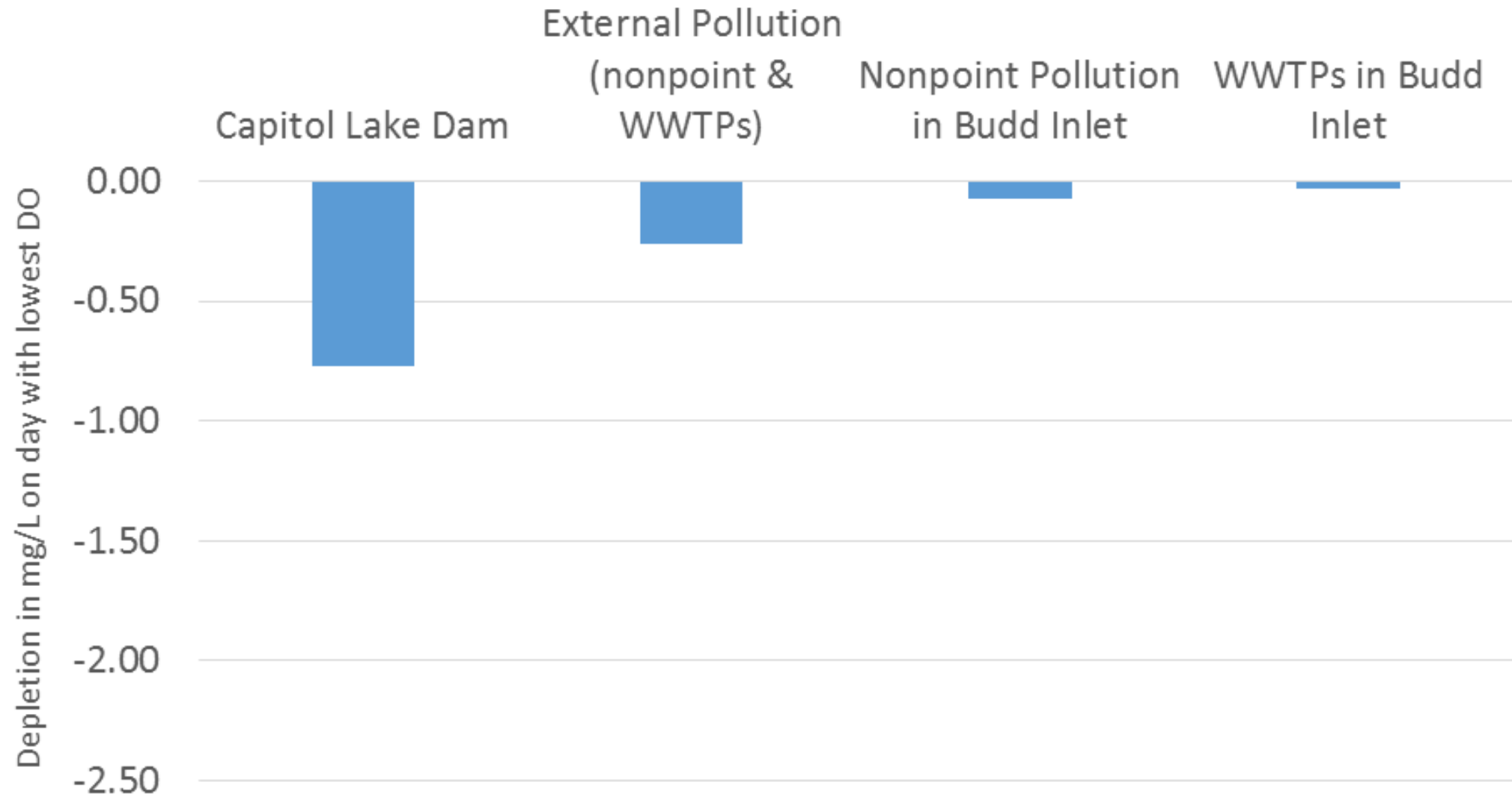
# Total Depletion in Dissolved Oxygen in Cell 29

(in mg/L on day with lowest DO)



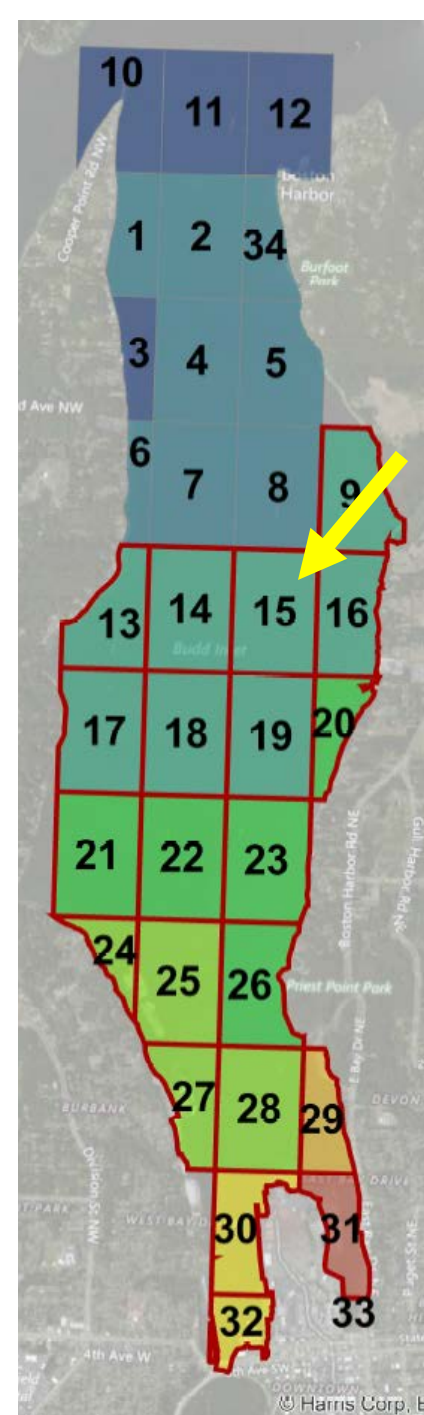
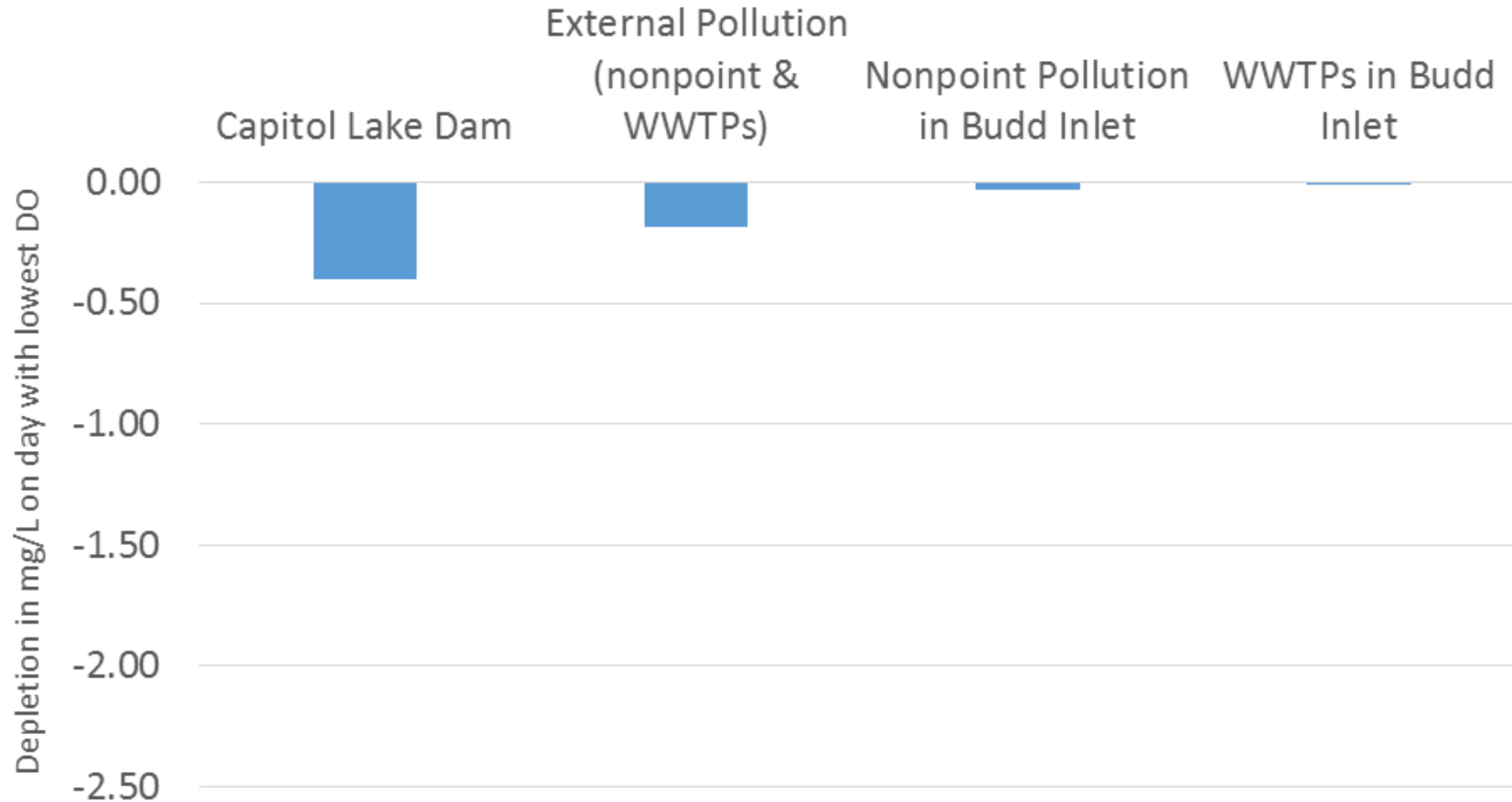


# Total Depletion in Dissolved Oxygen in Cell 25 (in mg/L on day with lowest DO)

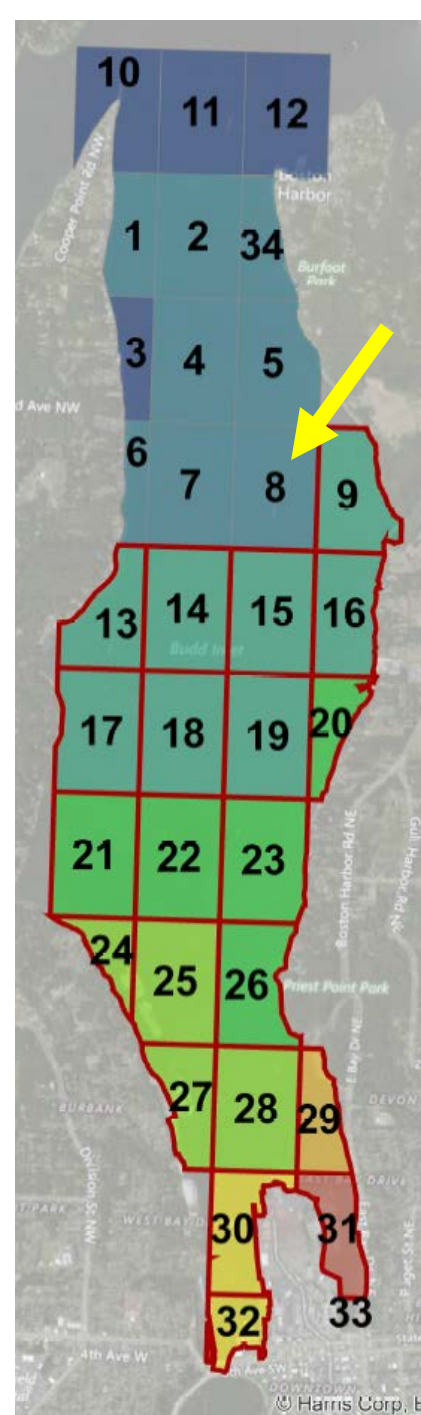
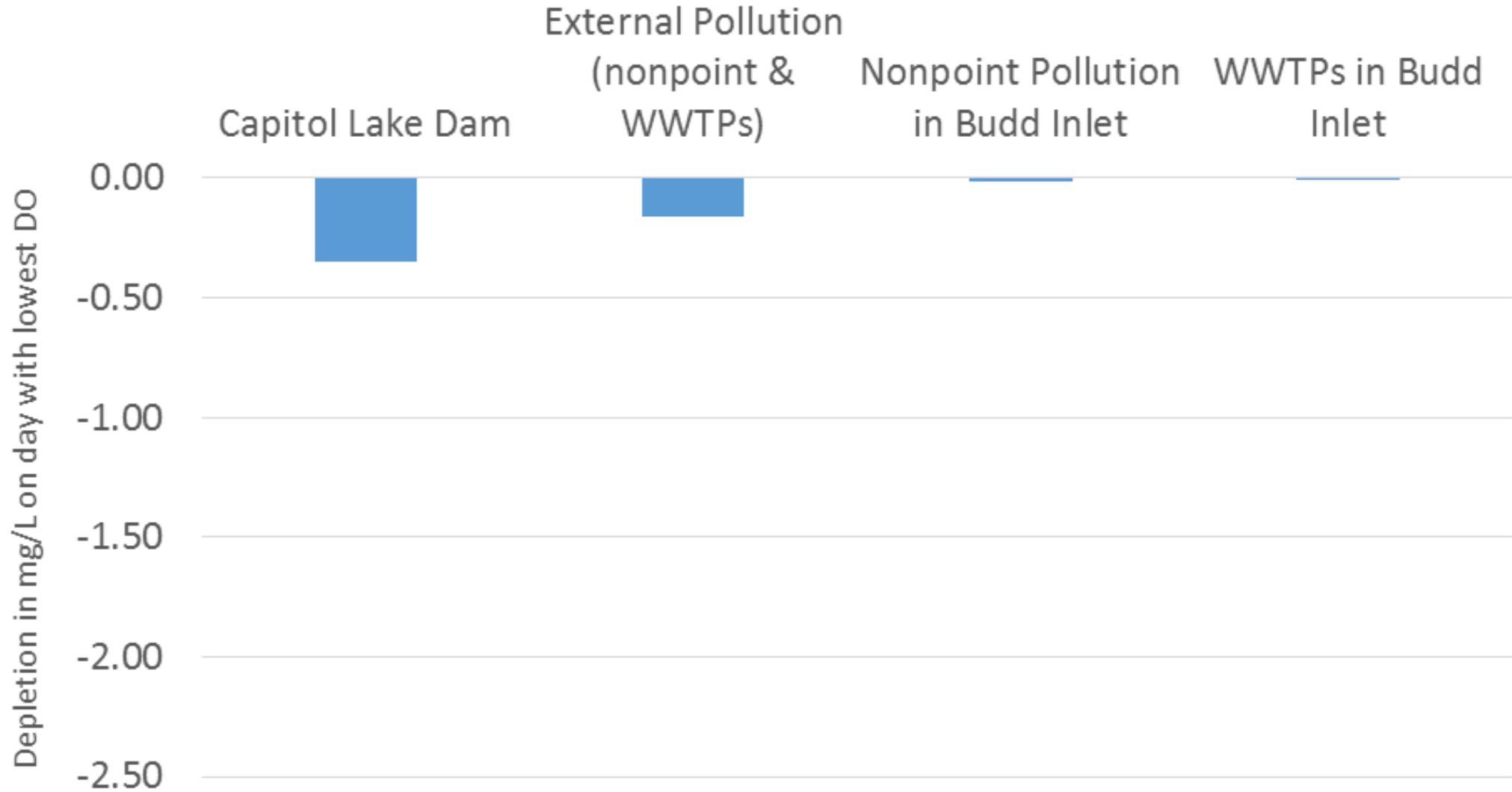


# Total Depletion in Dissolved Oxygen in Cell 15

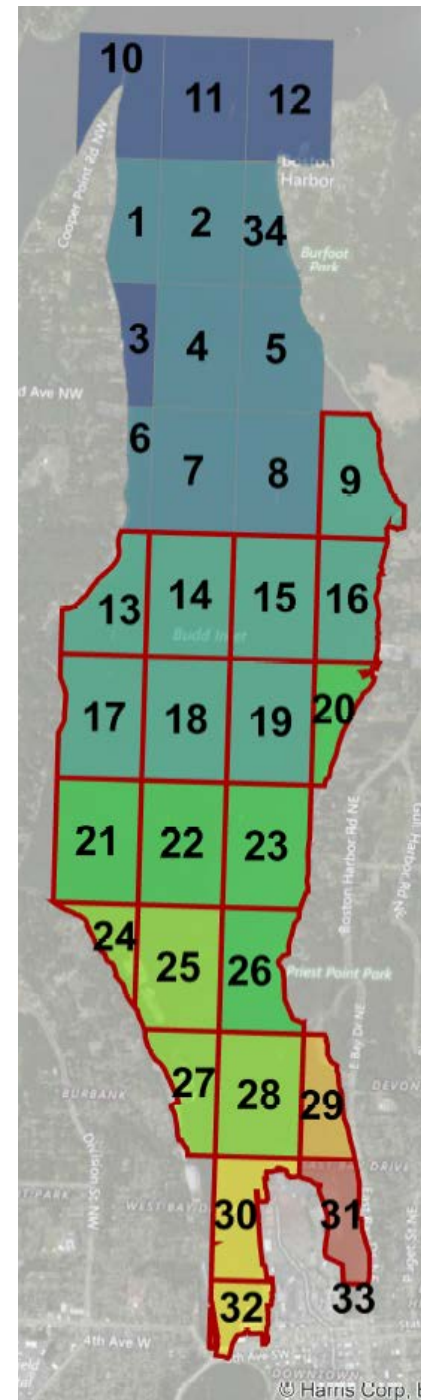
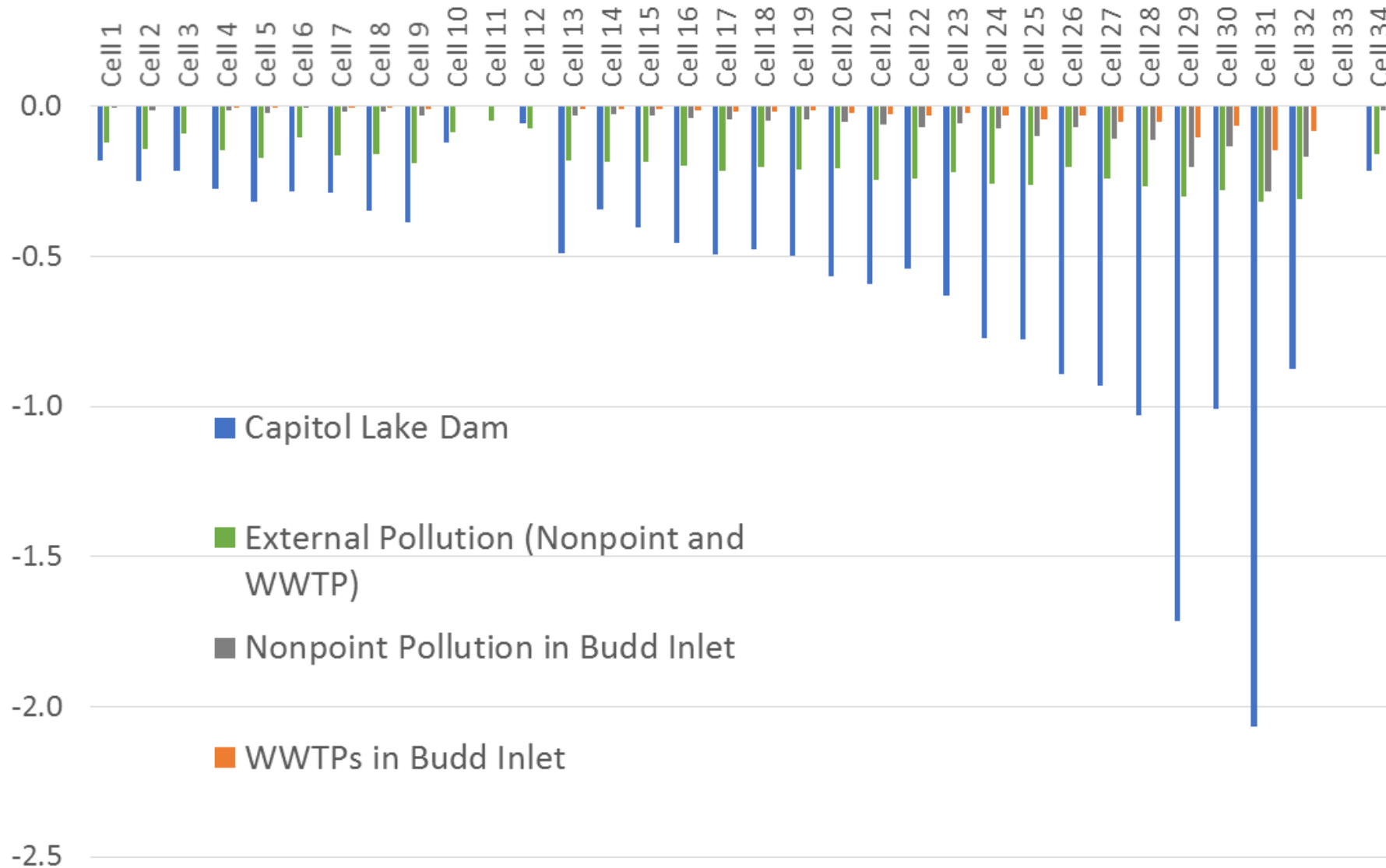
(in mg/L on day with lowest DO)



# Total Depletion in Dissolved Oxygen in Cell 8 (in mg/L on day with lowest DO)

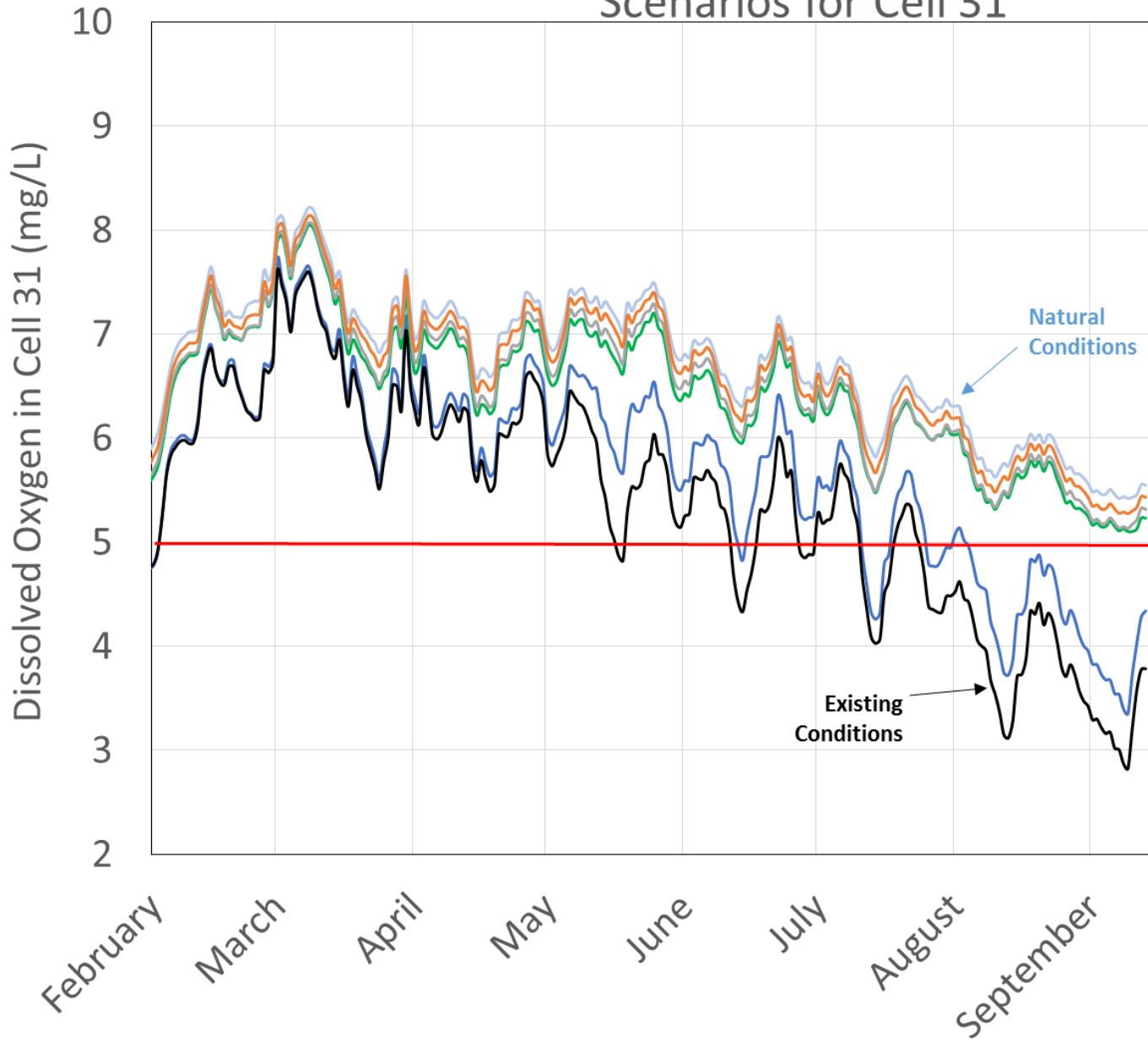


# Total Depletion in Dissolved Oxygen (in mg/L on day with lowest DO)

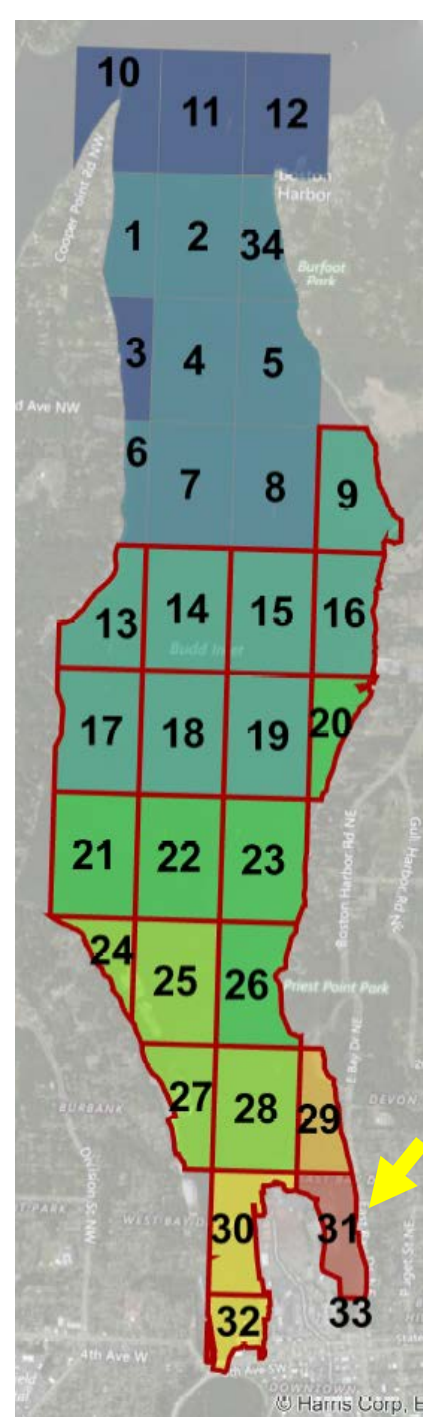




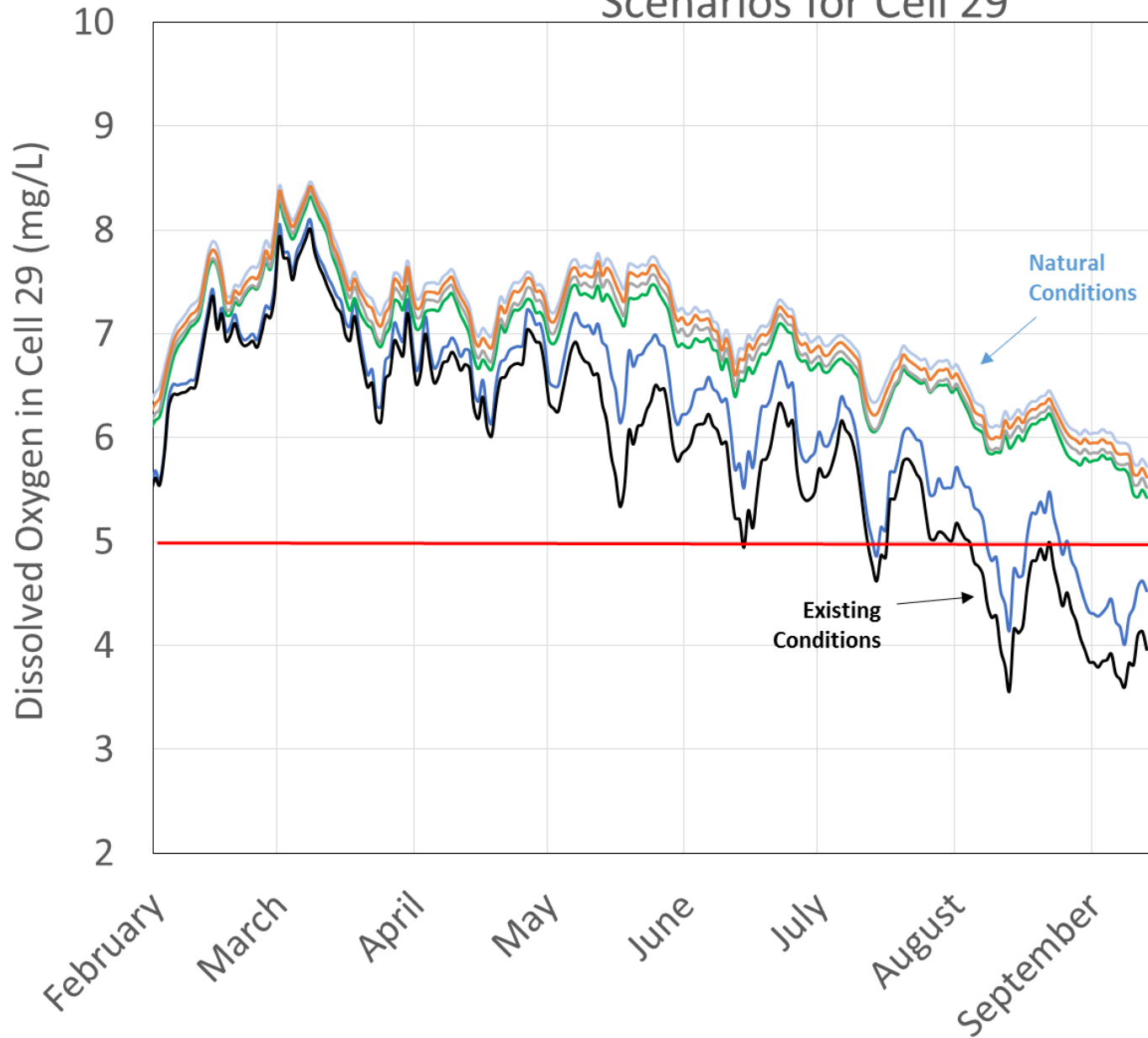
## Predicted Dissolved Oxygen Concentrations under Different Scenarios for Cell 31



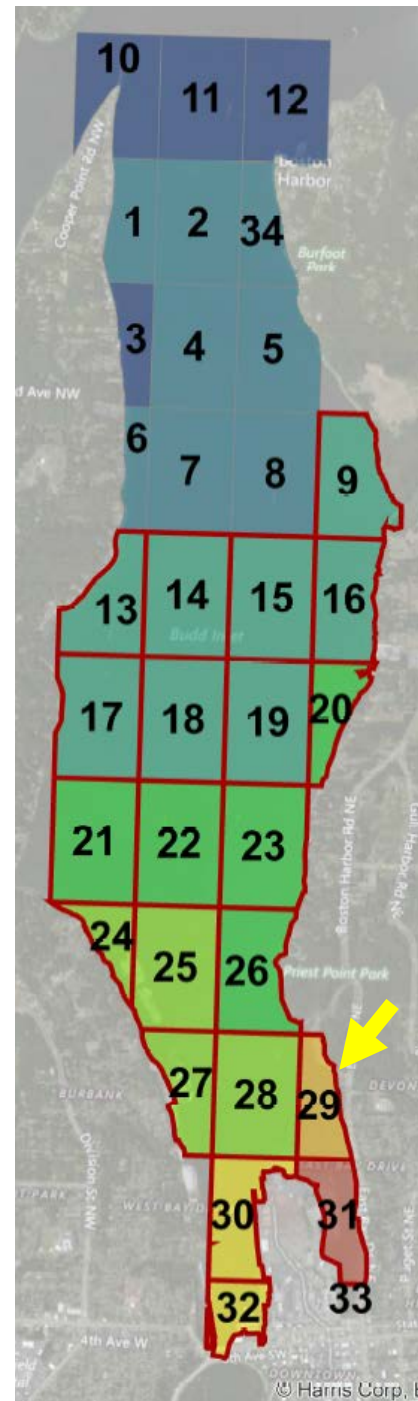
- Capitol Lake Dam
- External Pollution (nonpoint & WWTPs)
- Nonpoint Pollution in Budd Inlet
- WWTPs in Budd Inlet



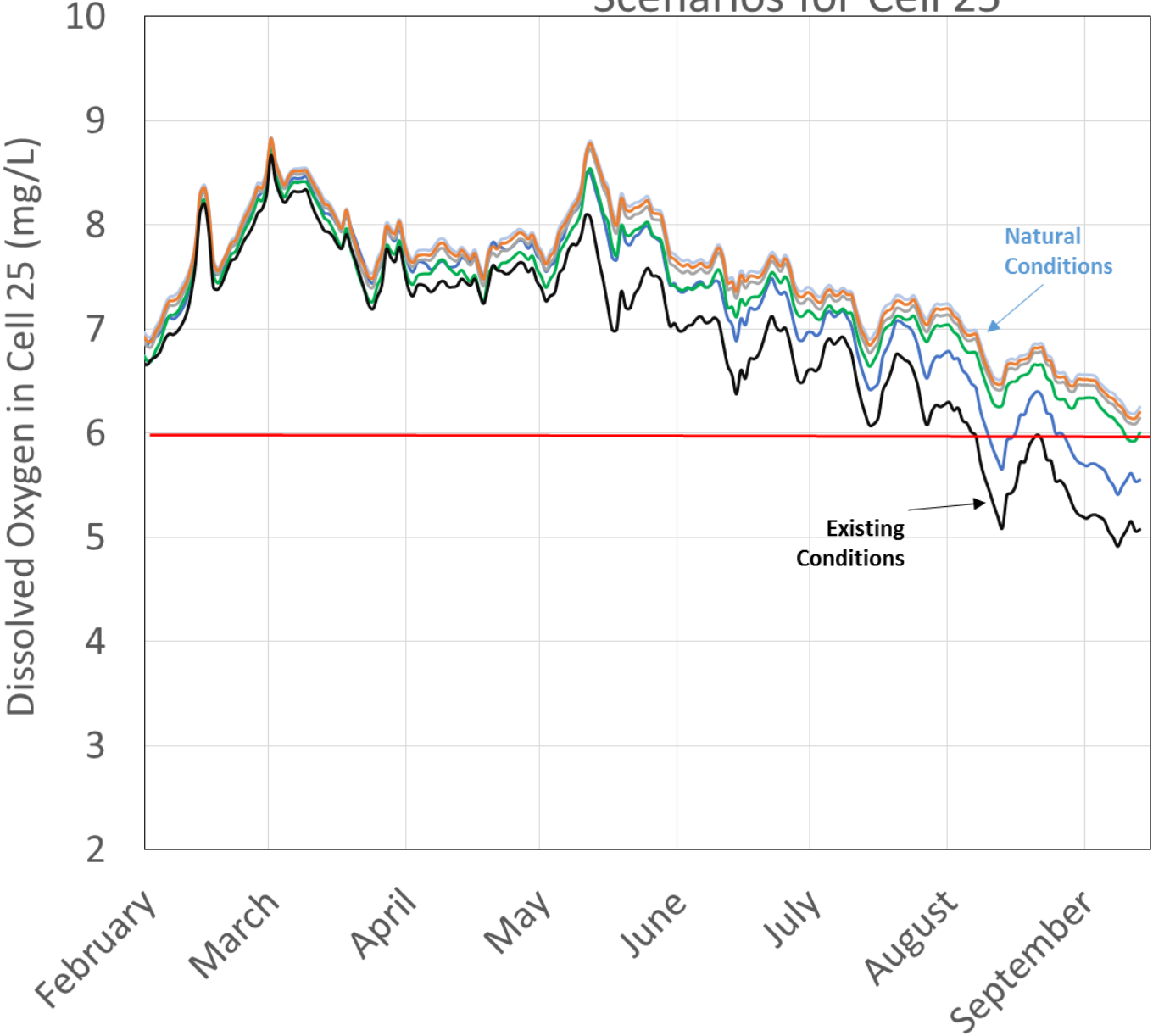
## Predicted Dissolved Oxygen Concentrations under Different Scenarios for Cell 29



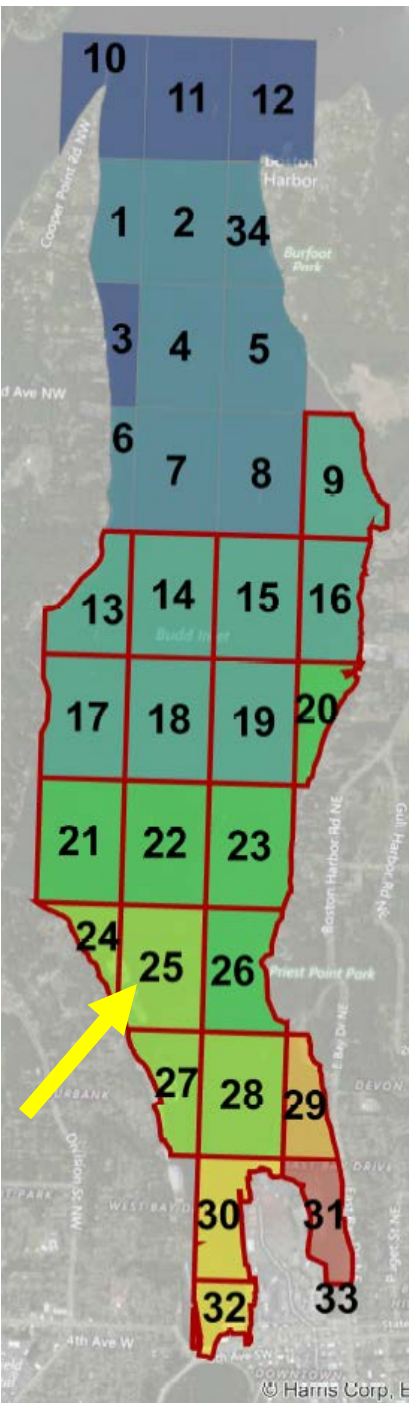
- Capitol Lake Dam
- External Pollution (nonpoint & WWTPs)
- Nonpoint Pollution in Budd Inlet
- WWTPs in Budd Inlet



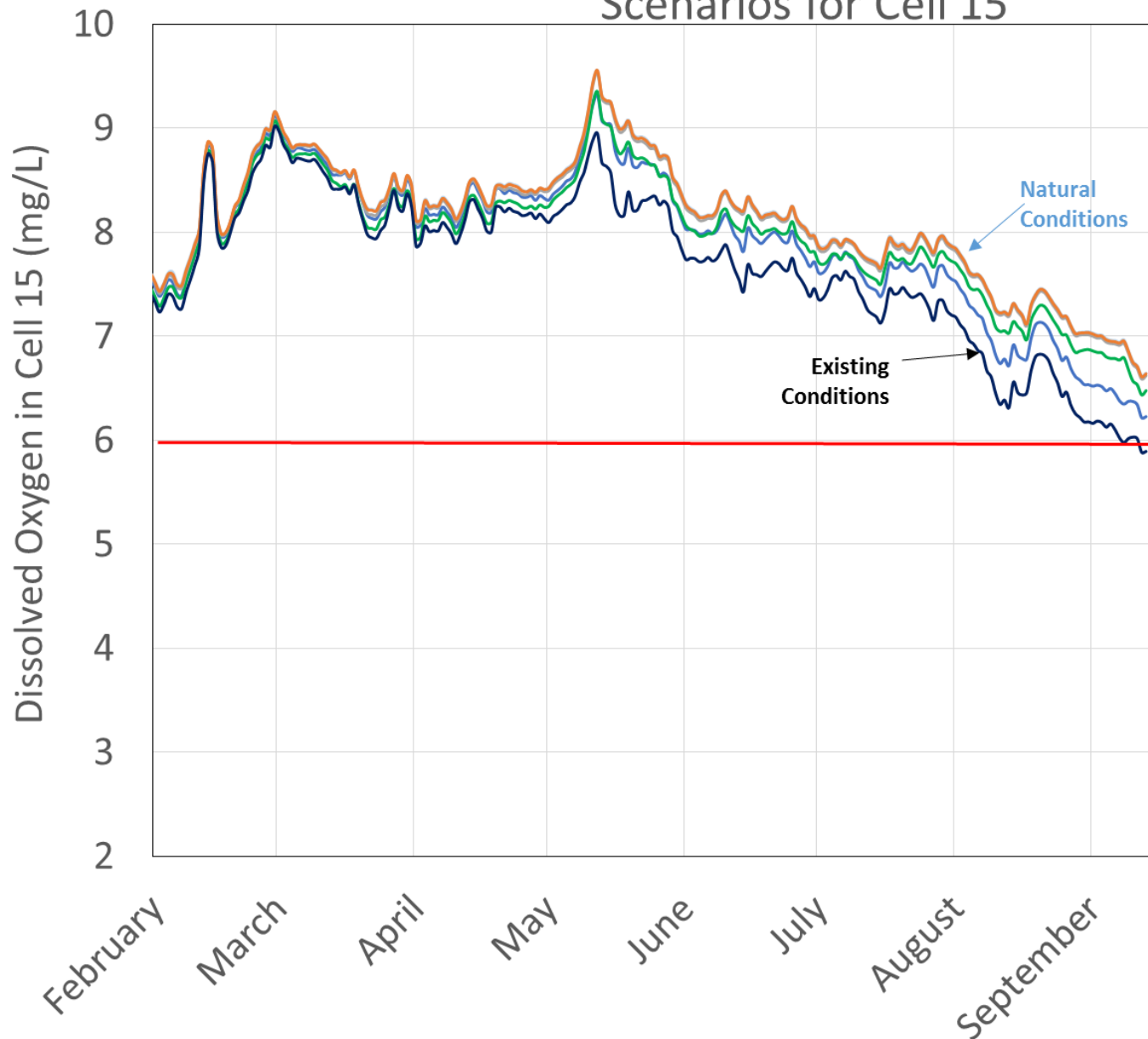
# Predicted Dissolved Oxygen Concentrations under Different Scenarios for Cell 25



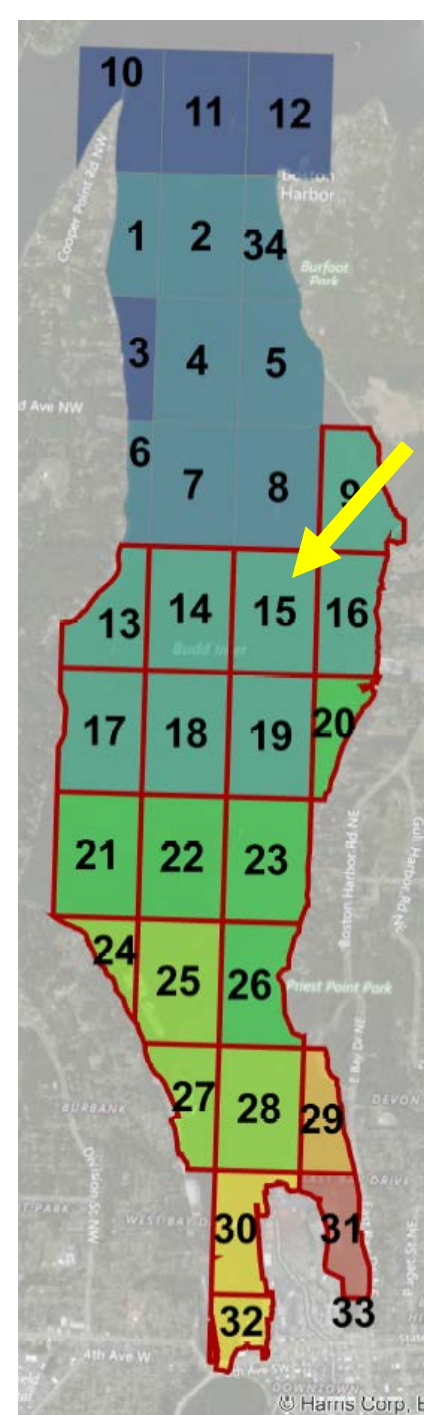
- Capitol Lake Dam
- External Pollution (nonpoint & WWTPs)
- Nonpoint Pollution in Budd Inlet
- WWTPs in Budd Inlet



## Predicted Dissolved Oxygen Concentrations under Different Scenarios for Cell 15

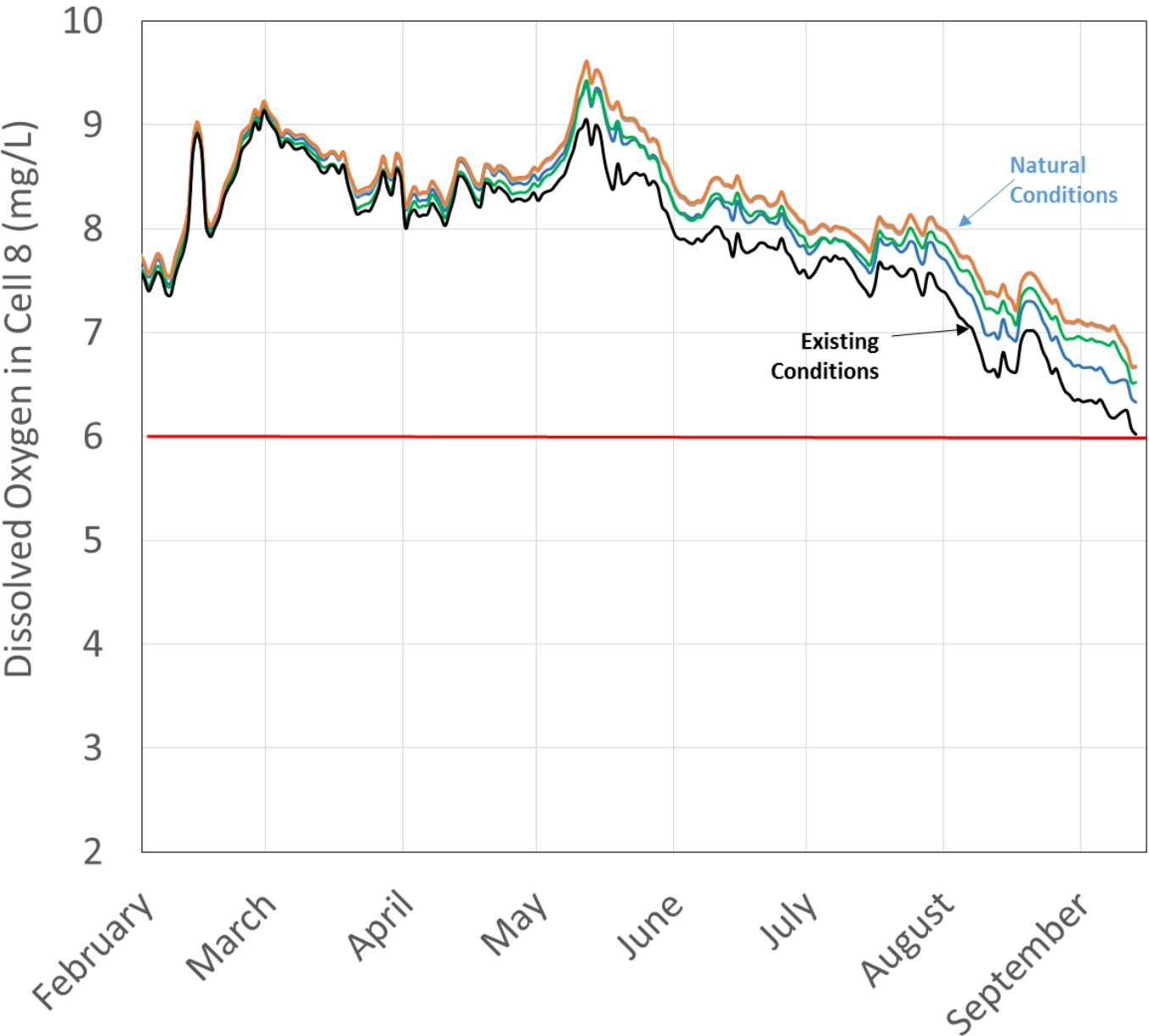


- Capitol Lake Dam
- External Pollution (nonpoint & WWTPs)
- Nonpoint Pollution in Budd Inlet
- WWTPs in Budd Inlet

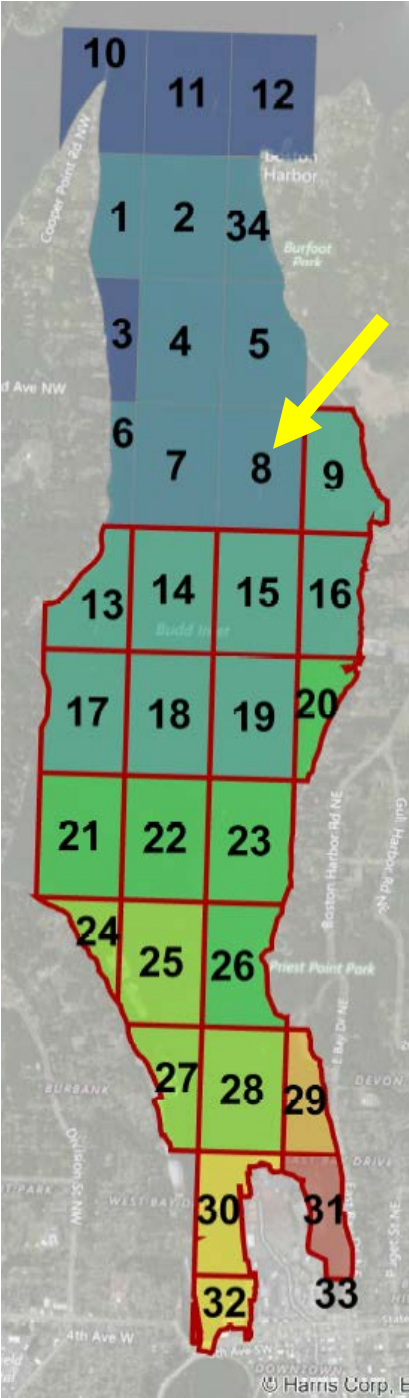




# Predicted Dissolved Oxygen Concentrations under Different Scenarios for Cell 8



- Capitol Lake Dam
- External Pollution (nonpoint & WWTPs)
- Nonpoint Pollution in Budd Inlet
- WWTPs in Budd Inlet



# Next Steps

- Still working on external pollution sources (nonpoint & individual WWTPs)
- Hire TMDL Lead
- Work with DES and LOTT

